SOLID-STATE LIGHTING:

Guiding Market Introduction of High-Performance SSL Products

Realizing the maximum energy- and cost-saving potential of SSL hinges on broad market acceptance—and, in turn, on ensuring a good match between consumer expectations and product performance.

From independent product testing and demonstrations to competitions and consumer education, DOE and its partners implement an array of strategies to lay the foundation for successful SSL market introductions.

lighting facts
A Program of the U.S. DOE

GATEWAY Demonstrations

CALiPER

L PRIZE℠

Next Generation LUMINAIRES

STANDARDS

Technical Information Network

Municipal Solid-State STREET LIGHTING CONSORTIUM

The U.S. Department of Energy (DOE) has developed a comprehensive national strategy to guide market introduction of solid-state lighting (SSL) for general illumination. DOE's commercialization support plan draws on key partnerships with the SSL industry, research community, standards-setting organizations, energy efficiency groups, utilities, and others, as well as on lessons learned from the past. DOE's role is to:

- Help consumers, businesses, and government agencies differentiate good products and applications.
- Widely distribute objective technical information.
- Coordinate SSL commercialization activities among federal, state, and local organizations.
- Communicate performance targets to industry.

Pathways to Market

Commercialization support activities are closely coordinated with research progress to ensure appropriate application of SSL products and avoid buyer dissatisfaction and delay of market development. Activities include:

Lighting Facts. DOE's Lighting Facts® program is a voluntary pledge program to assure that LED lighting, as it reaches the market, is represented accurately. Participation in Lighting Facts is open to all who manufacture, sell, and recommend the best in LED lighting. Those who take the pledge become part of a growing community of Lighting Facts partners across the lighting supply chain committed to supporting continuous improvement of SSL product quality. www.lightingfacts.com

GATEWAY Technology Demonstrations. Demonstrations showcase high-performance LED products for general illumination in a variety of commercial and residential applications. Demonstration results provide real-world experience and data on state-of-the-art SSL product performance and cost effectiveness. Performance measurements include energy consumption, light output, color consistency, and interface/control issues. The results connect DOE technology procurement efforts with large-volume purchasers and provide buyers with reliable data on product performance. www.ssl.energy.gov/gatewaydemos.html

CALiPER. DOE's testing program provides unbiased information on the performance of a widely representative array of commercially available SSL products for general illumination. Test results guide DOE planning for research and development, design competitions, and technology procurement activities; furnish objective product performance information to the public; and inform the development and refinement of standards and test procedures for SSL products. www.ssl.energy.gov/caliper.html

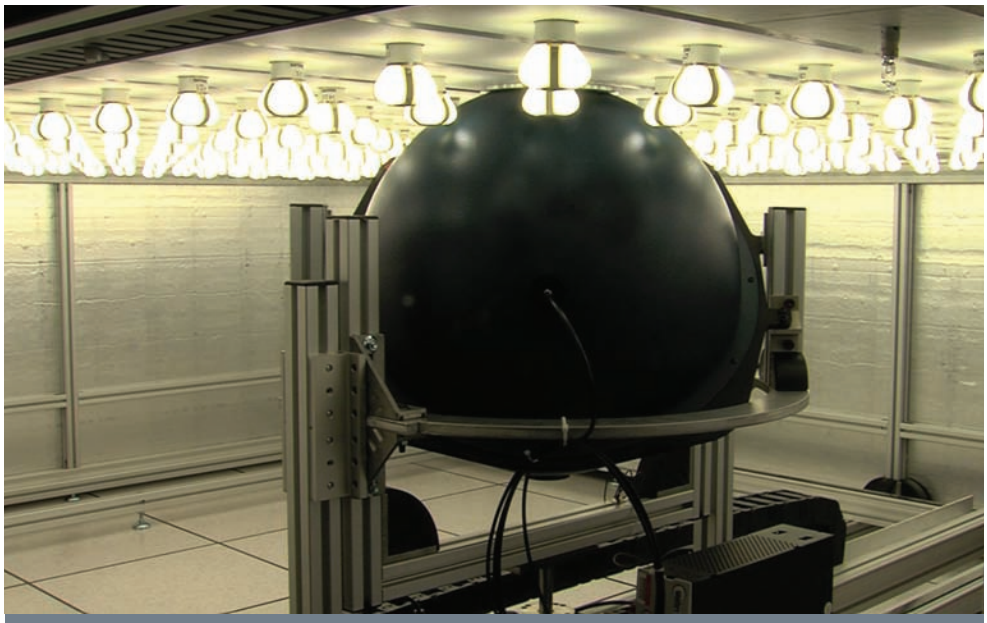
L Prize. DOE's L Prize℠ competition aims to accelerate development and adoption of SSL products to replace the common light bulb. The L Prize challenges industry to develop replacement technologies for two of today's most widely used and inefficient products: 60W incandescent lamps and PAR 38 halogen lamps. It also calls for development of a 21st Century Lamp that delivers ultra-high efficiency and performance. www.lightingprize.org

Next Generation Luminaires. The Next Generation Luminaires™ competition recognizes excellence in the design of energy-efficient LED commercial lighting luminaires. Sponsored by DOE, the Illuminating Engineering Society of North America, and the International Association of Lighting Designers, the competition winners are announced at the annual Strategies in Light® conference in Santa Clara, California. www.ngldc.org

Technical Support for Standards. DOE provides national leadership and support for the development of new test procedures and standards for SSL, working closely with the Illuminating Engineering Society of North America, the National Electrical Manufacturers Association, the Next Generation Lighting Industry Alliance, the American National Standards Institute, and other organizations to accelerate the standards development process, facilitate ongoing collaboration, and offer technical assistance. www.ssl.energy.gov/standards.html

TINSSL. DOE's Technical Information Network for Solid-State Lighting (TINSSL) increases awareness of SSL technology, performance, and appropriate applications. A coalition of representatives from energy efficiency organizations and utilities participate in monthly meetings to share information and updates, working closely with DOE to produce SSL outreach materials and support outreach events and activities. www.ssl.energy.gov/technetwork.html

Municipal Solid-State Street Lighting Consortium. To leverage the efforts of cities pursuing evaluations of LED street lighting products, DOE launched the Municipal Solid-State Street Lighting Consortium in April 2010. The Consortium collects, analyzes, and shares technical information and experiences related to LED street and area lighting demonstrations. Membership is open to municipalities, utilities, and energy efficiency organizations. www.ssl.energy.gov/consortium.html



Long-term lumen maintenance is one of the pivotal tests for L Prize competition entrants.

For More Information

For more information on the DOE SSL program, see www.ssl.energy.gov.

EERE Information Center

1-877-EERE-INFO (1-877-337-3463)
www.eere.energy.gov/informationcenter

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